Transparency_1

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In very general terms, a technical artefact becomes transparent when the sensorimotor contingencies [→ Sensorimotor contingency or dependency] have been assimilated and become second nature; concomitantly the interface itself, as such, drops out (disappears) from consciousness, to be replaced by a presence of objects and the actions that the user is performing in the world.

A classical illustration is the case of a blind person who does not feel the stimulations by the cane in her hand, but rather senses the pavement directly at the end of the cane.

Another classical example is the tactile-vision substitution systems [→ Sensory substitution systems]. Initially, the subjects are conscious of the interface device itself, and tactile stimulations are felt on surface of the skin. Progressively, with increasing familiarity, the subjects no longer feel the tactile stimuli; instead, they have a perception of an external object located out there in a distal space (see also [→ Externalization, perceptual]).

The situation is similar for the actions the person performs: when driving the car, I do not pay attention to the car itself, which is a transparent mean of my action. [Merleau-Ponty, 1945].

Conversely, if there is a breakdown or a dysfunction, the interface as such will come back into consciousness, and obliterate the world of objects [→ Technical artefacts, modes of]. A profound philosophical discussion of this issue is provided in Heidegger's *Being and Time*. See [Dreyfus, 1990] for an accessible presentation in English.

This scheme applies both to interfaces with the real world and with virtual reality. Transparency, as thus defined, is closely related to believability [→ Believability_ 1&2].

It follows that the transparency is not a term which applies to a tool or to an interface, as such; rather, it applies to the whole situation of interaction, and it corresponds to the degree of mastery of the sensorimotor contingencies achieved by the subject. This leads to the vast subject of learning, and the developmental acquisition of skills.

References

[Dreyfus , 1990] Dreyfus H.L. (1990). *Being-in-the-World: a commentary on Heidegger's Being and Time*. MIT Press.

[Merleau-Ponty, 1945] Merleau-Ponty, M., Phenoménologie de la perception. Gallimard, Paris, 1945.

Related items

Believability_ 1&2
Externalization, perceptual
Interface, enactive
Interface, ergotic
Sensorimotor contingency or dependency
Sensory substitution systems
Technical artefacts, modes of
Learning and enactive interfaces
Learning and training methods